Design and Access Statement
22 John Street Rear Office Roof Replacement and Installation of Solar Panels

28.01.14

Existing Building and Site- Overview

The existing building at 22 John Street, London WC1N 2BY is a grade II listed property dating from the 18th Century and is found within the Bloomsbury Conservation Area. 22 John Street is a Georgian era brick built five storey house(including basement) that is now an office building. The most used portion of the building as an office is the ground level rear extension that appears to have been built at a much later date than the original construction. This rear extension, behind the house, covers the entire former garden footprint and is the site of the present application. The original house is not intended to be altered.

22 John Street is bounded on the south(left hand view from street) by 23 John Street, a similar listed building, and on the north by 21a, an Art Deco era influenced eight storey high building that was recently listed. In the rear, the ground level extension is bounded by 11 and 13 John's Mews smaller properties and an open yard/garden to No. 23 John Street to the south and the open yard of 21a John Street to the north.

The present rear ground level extension to 22 John Street appears to have been built in the latter 20th Century in a pragmatic manner roofing over the entire original garden area between party walls, and(to be determined) a possible boundary wall in the very rear(at 11 John's Mews). Internal linings on all sides have been installed that cover over the original brickwork walls. The main feature of the roof of the extension is a long centrally placed Georgian wire glass single glazed skylight lantern that runs perpendicular to the back of the John street terrace of houses extending most of the length of the extension. The extant glazed lantern is structurally created in aluminium framing and is somewhat dingy and dull in appearance. The overall height of the present glazed lantern is +4.24 above the existing finished floor level of the existing rear extension office(0.00). There is a certain bulkiness to the existing glaze lantern as well and as it operates via mechanically opening vertical side panels. Internal air conditioning units have been placed in portions of the glazed lantern ceiling opening adding to visual clutter. Technically the single glazed lantern heats excessively in the summer and cools excessively in the winter. External heat pump elements(3 no.) are placed against a large freestanding brickwork party wall to the north side of the rear extension. The present rear ground level office has 73m2 of usable area.

view of existing rear extension roof looking back towards house

view of existing rear extension roof looking towards No. 11 John's Mews

Project Proposal

The present owners wish to carry out the following works to the existing rear extension:

1) Demolish and replace the existing single glazed roof lantern to the rear extension with a frameless triple structurally glazed roof lantern that is more minimal in design and less bulky. The overall height of the proposed new glazed lantern is +3.76 and there are no vertically glazed sides to the proposed lantern. The internal skylight opening shall be adjusted to suit. 8 no. opening lites are proposed in the overall new glazed lantern configuration.

2) Install 15 no. all black monocrystalline module solar panels to the rear roof and north bounding party wall. 7 no. solar panels are proposed to be placed at a 20 deg. incline as low as possible running parallel to the new glazed lantern. 8 no. solar panels are proposed to be mounted vertically on the northern freestanding party wall brickwork as tight as possible to the wall.

3) Demolish and rebuild the rear roof to the rear extension to the same overall height and thickness, but designed with a new neater more regular skylight opening. Allow in the design of the roof structure to accommodate structurally fixed solar panels to the south of the glazed lantern. Reroof the rear extension roof where not glazed in a dark lead coloured membrane roofing with upstands as required, capping flashings to be in lead.

4) Resite the 3 no. internal air conditioning units from the centrally located present position in the skylight opening to new positions in the solid ceiling of the rear extension office to the north.

5) Introduction of a single cable man-safe installed at low level around the perimeter of the roof.

The existing party walls shall be maintained as they are at present. All existing structural fabric is proposed to be left as found, but of course utilizing the party wall for structural support of the new roof structure.

The proposal to install a more minimal glazed skylight lantern is a response to technically inadequate existing glazed lantern that requires enormous amounts of energy to heat and cool to keep climatically modulated. Also the quality of the rear office space will be greatly improved visually.

The 15 no. solar panels are proposed to generate electricity as a way of off-setting the energy inefficient existing listed building fabric to make the overall existing building more sustainable into the future and have been designed and chosen with sympathy for the existing Conservation Area and listed building.

Demolition

As mentioned above the existing rear roof is proposed to be demolished in full with the existing glazed lantern leaving the party and possible rear boundary walls intact as found.

How the Proposal Affects Immediate Neighbours and the Conservation Area

The design reduces the visual impact of the existing rear glazed lantern by being much more minimal and omits a framing system. The overall height of the glazed lantern has been reduced by almost one half a metre as the vertical elements are removed. While the solar panels will be visible, the chosen panels are all back including their outer frame making them very neutral in appearance. The 8 no. panels proposed for the northern freestanding party wall have been designed to be vertically hung to be more discreet and look like neutral panels.

Access

The new proposal does not affect or change any existing access for general building users, and therefore does not appear to require extra Disability Discrimination Act requirement.

In terms of accessing the new roof for maintenance purposes, It is proposed that a single cable man-safe is installed around the roof perimeter as maintenance access is limited, and there are potential serious fall hazards to the north and south of the roof.

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